

Notice of Allowability

Application No.

10/676,656

Examiner

Sow-Fun Hon

Applicant(s)

COK, RONALD S.

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 04/05/07.
2. ☒ The allowed claim(s) is/are 1 and 4-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 6/4/07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other See Continuation Sheet.

Continuation of Attachment(s) 9. Other: The drawings filed 10/01/03 are accepted by the examiner.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stephen Shaw on 06/04/07.

The application has been amended as follows:

2. Claims 2-3 are cancelled.
3. Rewrite claim 1 as: - - An array of electrically connected conductive color filters, wherein each conductive color filter is in electrical contact with a transparent conductive electrode, at least one conductive color filter comprising an unpatterned layer of carbon nanotubes covered by a patterned layer of colored polymeric resin binder, wherein the color of the colored polymeric binder is black, red, green or blue. - -
4. Amend claim 4, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
5. Amend claim 4, line 2: after "claim", delete "3" and insert - - 1 - -.
6. Amend claim 5, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
7. Amend claim 6, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.

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8. Amend claim 7, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
9. Amend claim 7, line 1: after "claim", delete "3" and insert - - 1 - -.
10. Amend claim 8, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
11. Amend claim 8, line 1: after "claim", delete "3" and insert - - 1 - -.
12. Amend claim 9, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
13. Amend claim 9, line 1: after "claim", delete "3" and insert - - 1 - -.
14. Amend claim 10, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
15. Amend claim 11, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
16. Amend claim 12, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
17. Amend claim 13, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
18. Amend claim 14, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.
19. Amend claim 15, line 1: Before "claimed in", delete "conductive filter", and insert - - at least one conductive color filter in the array of electrically connected color filters - -.

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20. Amend claim 16, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
21. Amend claim 17, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
22. Amend claim 18, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
23. Amend claim 19, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
24. Amend claim 20, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
25. Amend claim 21, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
26. Amend claim 22, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
27. Amend claim 23, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
28. Amend claim 24, line 1: Before "claimed in", delete "conductive filter", and insert
-- at least one conductive color filter in the array of electrically connected color filters --.
29. Rewrite claim 25 as: -- A method of making an array of electrically connected
conductive color filters, comprising the steps of:

- a) depositing a layer of carbon nanotubes onto a surface;

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b) depositing a layer of colored polymeric resin binder over the layer of carbon nanotubes; and

c) forming the array of electrically connected conductive color filters, wherein each conductive color filter is in electrical contact with a transparent conductive electrode, at least one conductive color filter comprising an unpatterned layer of carbon nanotubules covered by a patterned layer of colored polymeric resin binder, wherein the color of the colored polymeric binder is black, red, green or blue. - -

30. Rewrite claim 29 as: - - A method of making a flat panel display, comprising the steps of:

a) providing a substrate having conductive elements and/or circuitry on a first portion and light emitters on a second portion of the substrate;

b) depositing a dispersion of nanotubes in a carrier on the substrate and drying the carrier;

c) depositing a layer of transparent colored polymeric resin binder over the nanotubes on the second portion of the substrate; ~~and~~

d) depositing a black light absorbing polymeric resin binder over the nanotubes on the first portion of the substrate; and

e) forming an array of electrically connected conductive color filters, wherein each conductive color filter is in electrical contact with a transparent conductive electrode, at least one conductive color filter comprising an unpatterned layer of carbon nanotubules covered by a patterned layer of colored polymeric resin binder, wherein the color of the colored polymeric binder is black, red, green or blue. - -

Rejoinder of Withdrawn Process Claims

31. Claims 1, 4-24 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(B), claims 25-31, as presently amended, are directed to the process of making or using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, and are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, **the restriction requirement as set forth in the Office action mailed on 12/30/04 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Reasons for Allowance

32. The following is an examiner's statement of reasons for allowance.

The closest cited prior art of record, WO 02/076724 A1, fails to fairly teach or suggest, even in view of US 6,436,591, the combination of an array of electrically connected conductive color filters, wherein each conductive color filter is in electrical contact with a transparent conductive electrode, at least one conductive color filter comprising an unpatterned layer of carbon nanotubes covered by a patterned layer of colored polymeric resin binder, wherein the color of the colored polymeric binder is black, red, green or blue. None of the references teach the configuration of the array of electrically connected conductive color filters, wherein each of the conductive color filters are in contact with a transparent conductive electrode, and wherein at least one of the conductive color filters comprises a layer of carbon nanotubes that is unpatterned, covered by a layer of black, red, green or blue polymeric resin binder, that is patterned. See Applicant's remarks dated 02/15/07.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


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Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (571)272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached at (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon.
Sow-Fun Hon
06/06/07


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